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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)  
0401-0002

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on March 10 2006

Signature Shannon Wallace

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Application Number  
10/696,901

Filed  
October 30, 2003

First Named Inventor  
Steven G. Glazik et al.

Art Unit  
3671

Examiner  
Meredith C. Petravik

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

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Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

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3/10/06  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 2 forms are submitted.

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## **REASONS FOR REVIEW**

At the time of the filing of the Notice of Appeal concurrently with this Pre-Appeal Brief Request for Review claims 1-32 were present in the application.

Of those claims, claims 1-23, 26 and 32 were indicated to be allowable over the prior art in the last Office Action.

The following rejections were made in the last Office Action:

- a. Claims 24, 25 and 28-31 were rejected as lacking novelty under 35 U.S.C. §102(b) over HADCOCK et al. (22,235);
- b. Claims 24, 25 and 28-31 were rejected as lacking novelty under 35 U.S.C. §102(b) over JOHNSTON (3,261,153); and
- c. Claim 27 was rejected as obvious under 35 U.S.C. §103(a) over HADCOCK et al. in view of GESSEL et al. (4,706,448).

Applicants respectfully submit that the rejections of claims 24, 25 and 27-31 should be withdrawn for the reasons stated in pages 7-10 of applicants' Reply to First Office Action Following Request for Continued Examination, mailed October 11, 2005, as well as the reasons stated herein.

Combines for the harvesting of wheat, soybeans and other small grains typically have a rotating harvester reel which has a plurality of elongate pickup tines which move the crop to be harvested into the combine. In view of the rather severe operating environment in which these harvester reel pick up tines perform their function, they are subject to breakage. Once a considerable number of tines have been broken the efficiency of the operation of the harvester reel is impaired. To restore the efficiency the harvester must be stopped and the broken pickup tines removed and replaced with new tines which is wasteful of time and effort, and places the combine out of service during the removal and replacement. Moreover, during tine replacement in the past, a tool has typically been required to completely remove the broken tines from the reel and replace them with new replacement tines.

In the present invention the broken pickup tines may be easily and rapidly repaired without the need for tools or the need to remove the broken tine. This substantially reduces the time and effort necessary for repair and combine downtime, and the repair actually results in a stronger tine assembly than existed with the original tines.

These advantages are accomplished in the present invention by the provision of an elongate repair finger which has an elongate cavity extending in the direction of the elongation of the finger and which cavity receives the broken tine to effect the repair without the need to remove the broken tine from the reel.

Three sets of claims are currently in the application.

Now allowed independent claim 1 and its dependent claims 2-10 are directed to the repair finger itself.

Now allowed independent claim 11 and its dependent claims 12-23 are directed to the combination of a first finger (the one to be repaired) on the support shaft of a harvester reel and a second finger (the repair finger) having a cavity therein which receives at least a portion of the first finger, e.g. the combination that results when the repair finger is placed over the previous finger.

Finally, independent claim 24 and its dependent claims 25-32 are directed to a method of repairing a broken harvester reel pickup tine finger. Dependent method claims 26 and 32 have been allowed over the prior art. However, independent method claim 24 and the remainder of its dependent claims 25 and 27-31 have been finally rejected and are the subject of this Pre-Appeal Request for Review.

HADCOCK et al. discloses a thimble C of cast iron having a cavity a to receive the shaped pointed tip of a wooden rake tooth D to **protect** the rake tooth from splintering or splitting, and the cavity a is curved and tapered over its length as seen in FIG. 2. The thimble C is attached to the extreme tip of the rake tooth D by a screw B.

JOHNSTON discloses a rake tooth for an agricultural implement which includes a rake bar 10 to which is connected a yieldable or bendable block 24 into which a tine 13 is mounted. The bendable block is formed of an elastomer such as rubber to absorb the shock which is experienced during operation and thereby extend the life of the tine. The JOHNSTON invention is to further add a tip 40 which is fabricated from steel having springlike characteristics and which is press fit over the bent but straight end of the tine 13 as seen in FIG. 3. Like the thimble C of HADCOCK et al., the purpose of the tip 40 of JOHNSTON is to **protect** the tine end against breakage, and after the tip 40 has become worn, it can be removed and replaced with another tip.

Addressing the independent method of repair claim 24, neither HADCOCK et al. nor JOHNSTON even begins to disclose, suggest or consider anything with respect to a method of **repairing** anything, nor do they disclose any elements which receive anything that is broken as explicitly set forth in claim 24. Indeed, rather than **repairing** anything that is broken, the stated purpose of both of those items of prior art is to **prevent** breaks before they happen. If either the tooth D of HADCOCK et al. or tine 13 of JOHNSTON breaks, the tooth or tine must be completely replaced to effect a **repair**. The method of **repair** which is claimed in claim 24 must be given weight, and when it is, it clearly distinguishes over HADCOCK et al. and JOHNSTON.

Moreover, the disclosed thimble C of HADCOCK et al. and tip 40 of JOHNSTON cannot inherently be used to repair a broken tine as claimed in claim 24. They are incapable of repairing a break because (1) the result would be a tine shorter than the other tines which would therefore result in a severe reduction of function, and (2) there would be little if anything remaining to attach thimble C of HADCOCK et al. or tip 40 of JOHNSTON to if the tooth or tine was broken. As to the latter, HADCOCK et al. states that their cavity a is configured “to receive the properly shaped point of the wooden tooth”. Thus, the very taper and curvature of the cavity a of HADCOCK et al. has the purpose to receive “the properly shaped point of the wooden tooth”, i.e. only the extreme tip of the tooth D is tapered and curved and virtually all of the remainder of the tooth D is of larger uniform diameter. If the tapered curve shaped extreme tip portion of the tooth D was broken off, nothing would be left but the larger uniform diameter portion of the tooth. That portion could not likely be inserted into the cavity a to a depth sufficient that the thimble C could be locked to the broken tooth by the screw B because of the very taper and curvature of the cavity a. As to JOHNSTON, the end portion of the tine 13 also needs to be present to attach the springlike tip 40 to it. If the end portion is broken off and not there, there is nothing left to attach the springlike tip 40 to. Moreover, if the springlike tip 40 is attached further up the tine 13 because the end is no longer there because it is broken off, like HADCOCK et al., the tine will suffer a severe reduction in function in relation to the remaining unbroken tines because it will be much shorter than them. And, the tip 40 could not be placed over the bend 33 of the JOHNSTON tine 13 if that remained after the tine is broken because the bore 44 of the tip 40 is cylindrical and not curved to accommodate the bend.

In the last Office Action Final Rejection at pages 4-5, the Examiner has stated:

However, a broken tooth in Hadcock could as is (*sic*) likely to break so that the end is not squared off and could fit in finger (*sic*) and likewise the tine in Johnston does not have to break at the bend. Applicant's claim 24 does not include any limitations as to the shape of the broken finger.

It is true that claim 24 does not include any limitations as to the shape of the broken finger. It need not contain any such limitations to define over HADCOCK et al. or JOHNSTON because claim 25 does call for the steps of:

positioning an elongate hollow finger having a cavity therein opening to at least one end of said hollow finger and extending over at least a portion of then length of the hollow finger so that at least a portion of a remaining portion of the broken finger extends into the cavity; and  
fastening said elongate hollow finger over said remaining portion of the broken finger when said portion extends into the cavity. (emphasis added)

In HADCOCK et al. the break would not likely occur in the reduced diameter tip because it is strengthened and protected by the thimble C. That is the express purpose of the thimble. If the tooth D broke, it would likely break at the juncture of the reduced diameter tip with the enlarged diameter of the tooth D as shown in FIG. 3. If that is the location of the break or if the break is any further down the tooth into its uniform enlarged diameter portion, the tooth that remains could not be fit into the cavity a as called for in claim 24 because, as shown in FIG. 3, the diameter of the tooth D is equal to the outside diameter of the thimble C not the smaller inside diameter of the cavity a. Moreover, even if the tooth D splintered longitudinally, there is no assurance that it would still be able to extend into the cavity a, and even if it could, that it could be fastened by the screw B. Such extension into the cavity and fastening steps are both claimed in claim 24.

In JOHNSTON, the break would likely occur where the protection of the tip 40 ends below the bend and before the tip 40 or at the bend itself because these would appear to be the most susceptible to breakage. The portion of the tine within the tip 40 is strengthened and protected against breakage by the tip. That is the purpose of the tip. And, the portion of the tine above the bend is protected by the closer resilient bendable block 24 and the shorter moment arm. Thus, breakage at or below the bend would not likely permit the remaining broken portion of the tine to

be extended into the cavity of the tip 40, or if it could, to permit enough broken tine to extend into the cavity to permit the kind of fastening of the springlike tip 40 as contemplated by JOHNSON. Again such extension and fastening are both claimed in claim 24. And, if the break is above the bend, no effective "repair" would occur if the tip 40 was placed over the remaining portion of the tine.

Finally, it should be noted that in contrast to the hollow replacement finger of the present invention which is similar in length and shape to the original unbroken tine, the placement of the quite short thimble C of HADCOCK et al. or tip 40 of JOHNSTON over a broken tine would not effect the "repair" of anything. The net result would simply be a short broken tine with a protective thimble C or tip 40. This would not restore the tine to its original length, condition or operation as would result when a "repair" has been performed as in the present invention. Indeed Webster's New World Dictionary defines "repair" as:

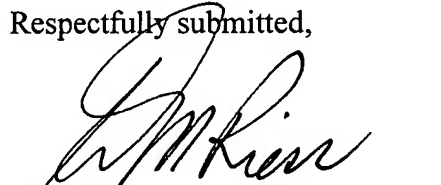
1. to put back in good condition after damage, decay, etc.; fix 2. to renew; restore (one's health, etc.).

For the foregoing reasons, it is respectfully submitted that the finally rejected independent method claim 24 and its dependent claims 25 and 27-31 are also in condition for allowance. Accordingly, favorable reconsideration and allowance of those remaining rejected claims are requested.

Respectfully submitted,

Dated:

By:

  
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